

University of Groningen

Bayley-III Special Needs Addition

Visser, L.

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version

Early version, also known as pre-print

Publication date:

2011

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Visser, L. (2011, Mar 17). Bayley-III Special Needs Addition.

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Adaptive developmental assessment of young children with special needs

L. Visser, S.A.J. Ruiter, B.F. van der Meulen, M.E. Timmerman, A.J.J.M. Ruijsenaars

December 2009 – December 2013

BCN Retreat 2011
17-18 March, Odoorn



Overview

- › Background
 - Bayley-III (video)
 - Current limitations in developmental assessment
 - Research aim and questions
- › Methods
- › Conclusion

Bayley-III

- › Bayley Scales of Infant and Toddler Development, Third Edition
- › Instrument for developmental assessment
- › 1 – 42 months developmental age
- › Subscales
 - Cognition
 - Receptive language
 - Expressive language
 - Fine motor →
 - Gross motor





Current limitations

- › Reliability in low range of distribution
- › Reliance on language and motor skills
- › Limited useful information for intervention plan (e.g. developmental potential)
- › Duration (90 minutes)

Visser, L., Ruiter, S.A.J., Van der Meulen, B.F., Ruijsenaars, A.J.J.M., & Timmerman, M.E. (2010). *A review of the standardized developmental assessment instruments for young children and their applicability to children with special needs*. Manuscript submitted for publication.



Research aim & questions

Aim: Development of the Bayley-III-NL-Special Needs Addition

Questions:

- Do children with special needs benefit from the adjustments made?
- Does item difficulty remain unchanged?
- Is it possible to develop an adaptive testing procedure?
- Does trichotomous scoring improve reliability?



Methods (1): Target group

Children in The Netherlands with

- › a cognitive impairment and / or
- › a motor, visual, speech / language, or hearing impairment
- › developmental age \leq 42 months
- › calendar age \leq 10 years

Methods (2): Design

3 versions

- › Non-verbal
- › Dynamic
- › Low motor / Low vision:



Sample size

- › n = 50 low motor / low vision and non-verbal
- › n = 85 dynamic version
- › n = 420 standard version



Methods (3): Organisations involved

UMCG Groningen (Bos; reeds in uw bezit)

1.1.1 Kindergeneeskunde/neonatologie

1.1.2 Wilhelmina Ziekenhuis Assen (Van der Veer)

NOVO Groningen (Nicolay; reeds in uw bezit)

1.2.1 KDC Ilmarinen Groningen

1.2.2 KDC De Kleine Beer Groningen

1.2.3 Project Vroeg Voortdurend Integraal Groningen

Molendrift Groningen (Loykens, reeds in uw bezit)

UU Afdeling Pedagogiek (Van Baar, reeds in uw bezit)

*Deelname aan het onderzoek en werving der ppn op basis van
 intentieverklaringen (zie bijlage)*

VisioSensisDeBrink Zeist (in uw bezit)

2.1.1 Sensis Breda

2.1.2 Sensis Eindhoven

2.1.3 Sensis Nijmegen

2.1.4 Sensis Sittard

2.1.5 Sensis Maastricht

2.1.6 Sensis Breda

2.1.7 Sensi Grave

2.1.8 Sensis Rotterdam

2.1.9 Visio Amsterdam

2.1.10 Visio Den Haag

2.1.11 Visio Dordrecht

2.1.12 Visio Goes

2.1.13 Visio Haarlem

2.1.14 Visio Haren

2.1.15 Visio Heer Hugowaard

2.1.16 Visio Leeuwarden

2.1.17 Visio Leiden

2.1.18 Visio Rotterdam

2.1.19 De Brink Vries

Talant (in uw bezit)

2.3.1 KDC Us Greide Heerenveen

2.3.2 KDC It Mearke Bolsward

2.3.3 KDC It Bijehus Drachten

2.3.4 KDC It Kampke Leeuwarden

De Zijlen (in uw bezit)

2.4.1 KDC Maricja Tolbert

Stichting Downsyndroom Meppel (in uw bezit)

RC De Vogellanden Zwolle (in uw bezit)

Rijnlands Revalidatiecentrum Leiden (in uw bezit)

RC Beatrixoord Haren (in uw bezit)

Sophia Stichting (vier locaties) (in uw bezit)

MEE Groningen (in uw bezit)

Libra Zorggroep

2.11.1 RC Blixembosch Eindhoven (in uw bezit)

Revalidatiecentrum Friesland Beetsterzwaag (in uw bezit)

RC Roessingh Enschede (in uw bezit)

Heliomare Wijk aan Zee (in uw bezit)

Koninklijke Effatha Guyot Groep (in uw bezit)

RC Fransiscusoord, Valkenburg aan de Geul (in uw bezit)

RC De Hoogstraat, Utrecht (in uw bezit)

Verklaringen die zijn nagekomen-

RC Breda

Viareva Apeldoorn

RC Leijpark Tilburg (behorend bij Libra Zorggroep)

Mytyschool Tilburg (behorend bij Libra Zorggroep)

Promens care (voormalig De Leite, 3 KDC locaties)

Stichting De Trans (KDC 't Boemeltje)

St. Maartenskliniek RC

CEDIN, educatieve dienstverlening Noord-Nederland

Down poli VUMC



Conclusion

- There is a clear need for a developmental assessment instrument for children with special needs.
- The Bayley-III-NL-SNA is a promising solution to existing problems. The research in the upcoming years will show whether or not it is a useful instrument.